

## **A Brief Look at Analog Imaging Instruments**

Media practice evolved in the late 1960s and early 70s as artists began to explore then-new analog television instruments, particularly portable video recording technology, and to build analog tools for image processing. The impulse to create media art emerged partly as a reaction to the one-way delivery system of a broadcast television dominated by corporate and profit motives, and as a reaction to an art world many felt to be restrictive in its definition of artists and its anxiety over the appropriateness of certain media. Video was a transformative technology which collapsed barriers erected by broadcast corporations and the art-world machine.

Some early video pioneers chose to use the new video tools in a formalist way, creating works intended to reach specialized, smaller audiences and dedicated energy to cable access, as well as closed-circuit exhibition through the creation of alternative exhibition venues outside the academy and sanctioned arts spaces.

Some practitioners viewed video from the perspective of social and political culture, of information theory and communications technologies. They were interested in having their programs aired on television, participating in a distribution system which offered a mass audience for these works which presented alternative voices and visions, in an effort to achieve social and political change.

Both were interested in one-to-one communications systems and in one to many, providing we could create content. We wanted to talk back to the tv and its controlling interests, with its one-way communication which rendered viewers voiceless.

While many artists never succeeded at broadcasting works – often because of the corporate culture of the times, the resistance to the counter-culture of the 1960s, the technical problems caused by small-format production, and experimental aesthetic values – the desire was there.

To some extent, the video field maintained a dualist position – critiquing existing political, communications and arts cultures, while seeking to play an active role in those very institutions.

### **The Matter of the Signal**

While many artists used these new tools to document social and political issues, others were more concerned with the aesthetics of the new medium.

They sought definitions of the new medium; with the phenomenon of video and its “materiality”; with its emphasis on process rather than product; and with its time-based nature. It was a medium of space/time.

When video was approached from a formalist perspective, artists were committed to an investigation of the inherent properties of the medium. Images were constantly being written and rewritten by the scanning process of a single electron beam over a phosphorescent surface. With a speed faster than the eye could resolve discretely, persistence of vision and phosphor decay presented images as whole and moving, when in fact there was only a solitary dot, tracing lines downward, interleaving, to create a raster. The image existed

only through time, continually disassembled and reassembled. The process of recording and display required precise timing pulses which operated in synchronicity with other equipment to maintain stable images.

All of these properties could be manipulated. Artists and technologists opted to disrupt the functions of broadcast and conventional TV tools in order to radicalize imagery. Others elected to design and construct, sui generis, unique tools and systems which invited the creation of truly experimental images like those never before seen.

## **Models of Access**

In the 1960s and early 70s artists struggled to gain access to the tools of production, as well as to the system of content distribution. The political and social climate of the counterculture of the 1960s – radical, democratic, collective – manifested itself in several types of organizations which were created to provide access to the new technology of video, and, in some cases, to help design and create new tools and systems.

Access was achieved with the creation of alternate media centers throughout the US and the world. The Experimental Television Center was founded in 1969 to explore video as an art form – with a focus on artists' residencies and instrument development, emphasizing image processing and techniques of video synthesis. These kinds of systems were also available at Media/Study in Buffalo where Woody and Steina Vasulka taught at the University of Buffalo, and several other locations in NYS and around the world.

Another model involved connecting the lab to an educational institution. Organized by Dan Sandin, Tom DiFanti and Phil Morton, one example was the lab at the University of Illinois at Chicago Circle which emphasized instruments, often in the employ of performance. It was there that Sandin and his colleagues designed the Image Processor.

Artists' laboratories were also attached to public broadcasting systems throughout the country, providing a direct linkage of content creation and distribution. The National Experiments in Television at KQED (1967-1975, San Francisco) was a home for artist/engineers concerned with creating new media tools for artists. Steven Beck designed the Direct Video Synthesizer and Don Hallock created his Videola. WGBH's New Television Workshop (1974-1993, Boston) and WNET's TV Lab (1972-1984, New York) were both home to the Paik/Abe Video Synthesizer designed and built by Shuya Abe and Nam June Paik in the early 1970s. Both

Other technologists operated alone or in small teams to design tools for the use by artists; this group included David Jones, Bill Hearn, Steve Rutt and Bill Etra, and Jeffrey Schier.

## The End of Analog

What began in the 1960s as a quest for access to new television tools and a desire to design video instruments and has become today a search for access to the means of their preservation.

While digital technologies have all but replaced analog, some of these early analog processing tools are obsolete because of their reliance on the very processes of analog signal creation. The Paik Wobulator or Raster Manipulation Unit and the Rutt/Etra were both based on the scanning functioning of a CRT. The preservation strategies for these early experimental analog instruments range from rebuilding the originals to the emulation of the analog in digital form. There are still artists, particularly those working in the sonic arts, who insist that analog systems offer unique qualities which cannot be replaced with digital.

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